



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,911	03/12/2001	Eric B. Allen	58207.000004	7159

7590 09/16/2003  
Rene A. Vazquez, Esq.  
Hunton & Williams  
Suite 1200  
1900 K Street, N.W.  
Washington, DC 20006

EXAMINER

MORAN, MARJORIE A

ART UNIT PAPER NUMBER

1631

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/802,911

Applicant(s)

ALLEN ET AL.

Examiner

Marjorie A. Moran

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 14-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

***Election/R strictions***

Claims 14-56 are again withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

This application contains claims 14-56 drawn to nonelected inventions. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims have been amended to recite a "dynamic database". Support for a system comprising a "dynamic database" is found in the originally filed specification on page 4, lines 1-4. However, a definition of a "dynamic database" is not disclosed anywhere in the originally filed specification. The term "dynamic" has several meanings. As applied to a database, Merriam-Webster's Dictionary defines "dynamic" to mean "requiring periodic refreshment of charge in order to retain data". The instant specification, however, does not disclose anything with regard to "charging" a database. The specification discloses, on page 9 et seq., that a user may add data to a database and that a simulation module may receive data from the database, therefore the originally filed specification appears to disclose that a "dynamic" database is merely one which is capable of change. As the meaning intended by applicant for a "dynamic database" is

Art Unit: 1631

unclear, one skilled in the art would not know the metes and bounds intended by applicant for the claimed "dynamic database". For these reasons, the claims are indefinite. Based on the disclosure of the specification, the examiner interprets a "dynamic database" to be one which is capable of change.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-5 and 7-8 are again rejected, as previously set forth in the office action of 2/25/03, under 35 U.S.C. 102(b) as being anticipated by KARP et al. (IDS ref: ISMB-96, pp. 116-124).

Applicant's arguments filed 6/25/03 have been fully considered but they are not persuasive. In response to the argument that KARP teaches a static database, not a dynamic

one, it is noted that KARP teaches that "(a)dditional function predictions were added" to the database (page 118: Genes) and at several steps, inferences were removed (Page 118: Proteins), thus teaching that his database is capable of change, and that the database can be changed by a "user". In response to the argument that the instant claims recite a method of generating signal cascades using "cellular components, reactions, and concepts", applicant is reminded that the instant claims are directed to a *system*, not a method. The claimed system is limited to comprise a database of definitions relating to "cellular components, reactions, and concepts", but no method steps are reciting regarding "use" of these. AS KARP does teach an inference engine linked to a database capable of change (i.e. a dynamic database), and his database comprises cellular components, reactions, and metabolic pathways (i.e. cellular events, which are defined as "concepts"), as previously set forth, the examiner maintains that KARP anticipates the claims. For these reasons, the rejection is maintained.

Claims 1-2 and 6-13 are again rejected, as previously set forth in the office action of 2/25/03, under 35 U.S.C. 102(a) and (e) as being anticipated by THALHAMMER-REYERO (US 5,930,154).

Applicant's arguments filed 6/25/03 have been fully considered but they are not persuasive. In response to the argument that the methods and systems of THALHAMMER-REYERO comprise static inferences and simulations", it is noted that only the database of the claimed system is limited to be "dynamic". Applicant quotes col. 19 wherein THALHAMMER-REYERO discloses that the *methods* to be used for simulation are not available for manipulation by an end-user. This is a teaching that the components of THALHAMMER-REYERO's program which are used to manipulate data are not available to be altered, NOT that the data (or database) itself can not be changed. In fact, THALHAMMER-REYERO teaches at column 19,

Art Unit: 1631

lines 13-30, that biological information (i.e. data) can be encoded into BioObjects, which “building block” library can be expanded by a user, and can be used with an inference engine to create **dynamic** interactive pathways” (emphasis added by examiner). THALHAMMER-REYERO also teaches, in column 5, at lines 26-28 that his knowledge structures (databases) are “modifiable, expandable...”, and at lines 49-52 that an object of his invention is to allow users to enter data (knowledge), and to create and modify models as needed. In column 7, lines 41-47, THALHAMMER-REYERO specifically teaches that his system is designed to allow users to integrate their experimental data with the knowledge from other investigators. In response to the argument that the claimed system does not “limit the end-user in the manner taught by THALHAMMER-REYERO it is again noted that the claims are directed to a system, not a method. The claims do not recite any limitations with regard to an “end-user”.

AS THALHAMMER-REYERO teaches that his database is one capable of being changed, and teaches that his database can be used with an inference engine to create dynamic pathways, as previously set forth and reiterated above, the examiner maintains that THALHAMMER-REYERO anticipates the claims. For these reasons, the rejection is maintained.

### ***Conclusion***

Claims 1-13 are rejected; claims 14-56 are again withdrawn.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 1631

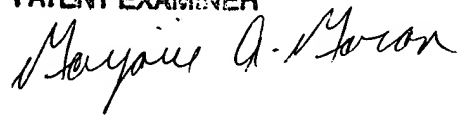
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marjorie A. Moran whose telephone number is (703) 305-2363. The examiner can normally be reached on Monday to Friday, 7:30 am to 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (703) 308-4028. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3524.

**MARJORIE MORAN**  
**PATENT EXAMINER**



mam